IROAN
PRE-INDUCTION INSPECTION SHEETS
FOR
5 TON FAMILY VEHICLES

DATE:

MODEL:

U.S.M.C. NO. MILES

JOB ORDER NO. HOURS

PRODUCTION NO.

ENGINE NO.

TRANSMISSION NO.

INSPECTOR'S NAME	BADGE NUMBER	SHOP NUMBER

Note: THE FOLLOWING INSPECTION SHEETS ARE DIVIDED INTO SEVEN COLUMNS. THE INSPECTOR SHALL PLACE A CHECK IN THE COLUMN WHICH BEST DESCRIBES THE CONDITION OF THE ITEM BEING INSPECTED. FOR THOSE ITEMS THAT CANNOT BE INSPECTED FOR ANY REASON, THE INSPECTOR SHALL MAKE AN APPROPRIATE ANNOTATION IN THE REMARKS COLUMN. IF THE INSPECTOR FINDS A DEFECT THAT COULD CAUSE INJURY TO THE OPERATOR OR DAMAGE TO THE END ITEM, TESTING WILL CEASE UNTIL THE DEFECT IS CORRECTED OR THE DECISION IS MADE TO INDUCT THE VEHICLE INTO THE IROAN CYCLE.

PRE-TEST CHECKLIST - ALL MODELS

NOTE: During the walk around inspection, examine vehicle for general appearance including paint, sheet metal rustproofing, workmanship type defects, and miles or damaged equipment. Paint scratches that do not penetrate the top coat are acceptable.

	CHARACTERISTICS	SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
1.	FRONT OF VEHICLE								
a.	Headlights/front marker lights								
	(1) Damage								
	(2) Security of mounting								
b.	Front glad hands								
	(1) Hose, lines, and fitting for damage/looseness								
	(2) Dust cover for damage/missing chain								
c.	Windshield for damage								
d.	Wiper arms and blades								
	(1) Damage								
	(2) Proper mounting								
e.	Lifting shackles								
f.	Self recovery winch (if equipped)								
	(1) Hose, lines, and fitting for damage/looseness								
	(2) Cable for kinks and frays (top row)								
	(3) Cable clevis for damage (lock pin installed)								
	(4) Cable evenly wound and secured								
	(5) Winch guide rollers for proper lubrication								
2.	ENGINE COMPARTMENT								
a.	Cold weather start aide								
	(1) Security of mounting								
	(2) If temperature is below 45 degrees, insure								
	bottle is connected								
b.	Engine mount biscuits for damage/looseness								
c.	Fuel line connections for looseness/damage								
d.	Compressor lines/fittings for looseness/damage								

		SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
e.	Fan belts for damage								
f.	Fan rotates freely								
g.	Radiator for leaks/cooling fins for damage								
	and/or obstructions								
h.	Engine oil check cold must be between low l								
	and full								
i.	Radiator level must be 1" below filler neck								
j.	Transmission oil check cold must be at cold								
k.	Electrical connections for looseness/damage								
l.	Air line connections for looseness/damage								
m.	Power steering reservoir cold check to cold mark								
n.	Steering arms and linkages for sufficient								
	lubrication								
o.	Power steering oil cooler .								
	(1) Hose, lines, and fittings for damage/								
	loosness								
	(2) Proper mounting								
	(3) Leaks								
	(4) Cooling fins for damage and or obstructions								
p.	Cab mount biscuits for damage/looseness								
3.	CURB SIDE OF VEHICLE								
a.	Side marker lamps for damage/security of mounting								
b.	Front wheel and tire								
	(1) Condition of tires (cuts, gouges, & uneven/								
	excessive wear)								
	(2) Lug nuts for obvious looseness								
c.	Passenger door								
	(1) Door for ease of operation, fit and sealing								
	(2) Window for ease of operation and damage								
	(3) Side mirrors for damage and security of mounting								

		SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
d.	Steps for damage and security of mounting								
e.	Air reservoirs								
	(1) Pet cocks for freedom of movement								
	(2) Hoses, lines, and fittings for damage/looseness								
f.	Storage boxes								
	(1) Security of mounting								
	(2) Hinges for damage and looseness								
	(3) Water in boxes								
g.	Hydraulic reservoir								
	(1) Leakage								
	(2) Hose, lines, fittings for loosensess/damage								
	(3) No rust on dipstick/filler neck								
	(4) Fluid level 1/2 way between low and full								
h.	Intermediate/rear wheels and tires								
	(1) Condition of tires (cuts, gouges, uneven and								
	gouges, and excessive wear)								
	(2) Lug nuts for obvious looseness								
	(3) Mud flaps torn/missing/bent hardware								
	(4) Fenders for security of mounting/bent/loose bolts								
4.	REAR OF VEHICLE								
a.	Rear tail lights								
	(1) Damage								
	(2) Security of mounting								
b.	Pintle hook								
	(1) Freedom of movement								
	(2) Security of mounting								
	(3) Lock pin and chain secured.								
c.	Rear glad hands								
	(1) Hose, lines, and fittings for damage/looseness								
	(2) Dust covers for damage/missing chains								
d.	Trailer light receptacle loose/damaged								
e.	Lifting shackles missing								
f.	Reflectors missing/damaged								

		SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
5.	ROADSIDE OF VEHICLE								
a.	Intermediate/rear wheels and tires								
	(1) Condition of tires (cuts/gouges/uneven/excessive wear								
	(2) Lug nuts for obvious looseness								
	(3) Mud flaps torn/missing/bent hardware								
	(4) Fenders for security of mounting/bent/loose								
b.	Side marker lamps for dainage/security of mounting								
c.	Fuel tanks and lines								
	(1) Security of mounting								
	(2) Fuel lines and fittings for damage/looseness								
d.	Air intake stack for damage/security of mounting								
e.	Air cleaner								
	(1) Obvious damage								
	(2) Hoses/clamps/fittings for looseness/damage								
	(3) Dust cup installed								
f.	Drivers door								
	(1) Door for ease of operation/fit/sealing								
	(2) Window for ease of operation fit/sealing								
	(3) Side mirrors for damage/security of mounting								
g.	Steps for damage/security of mounting								
h.	Cab mount biscuits for damage/security								
i.	Front wheel and tire								
	(1) Condition of tires (cuts, gouges, uneven								
	excessive wear)								
	(2) Lug nuts for obvious looseness								
6.	REAR OF CAB								
a.	Spare tire								
	(1) Damage								
	(2) Security of mounting								
b.	Spare tire/carrier and davit assembly								
	(1) Tire securely mounted								
	(2) Tire davit, winch cable/handle for damage								

		SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
7	CAB INTERIOR								
a.	Batteries and cables								
	(1) Fluid level (up to split ring)								
	(2) Posts and cables for looseness/corrosion								
	(3) Batteries for security of mounting								
b.	Glass for excessive scratches								
c.	Seats for ability to adjust and security of mounting								
d.	Instruction and data plates								
	(1) Location and proper installation								
	(2) Correct information on all the plates								
8.	UNDERSIDE OF VEHICLE								
a.	Front Suspension								
	(1) CV boot for damage								
	(2) Hoses, lines, fittings for looseness/damage								
	(3) Shock absorbers for looseness/damage								
	(4) Input/output shafts for mounting, lube								
	(5) Input/output seals for leaks								
	(6) Breather caps for freeplay/damage								
	(7) Front axle for proper level								
b.	Air Reservoirs								
	(1) Hoses/lines/fittings for damage/leaks/chafing								
c.	Transmission								
	(1) Mounting and security of components								
	(2) Leaks								
d.	Transfer case (8 point 5/8 in 1/2 indrive socket)								
	(1) Mounting and security of components								
	(2) Check for proper level								
	(3) Input/output shafts for damage/looseness								
e.	Rear suspension								
	(1) Hoses, lines, and fittings for damage/loosenss								
	(2) Input/output shafts for mounting, lube								
	(3) Input/output seals for leaks								
	(4) Breather caps for freeplay								
	(5) Intermediate/rear axles for proper levels								

		SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS
9.	TRUCK BODIES								
a.	Cargo bodies								
	(1) Side and end panels for damage								
	(2) Latches, hinges, and pins for damage								
	(3) Cargo tie downs for broken welds								
	(4) Side racks for proper installation								

SOW-07-PMM151-08324A-2/1
MC-Alb-0T250(ILSD)11-91

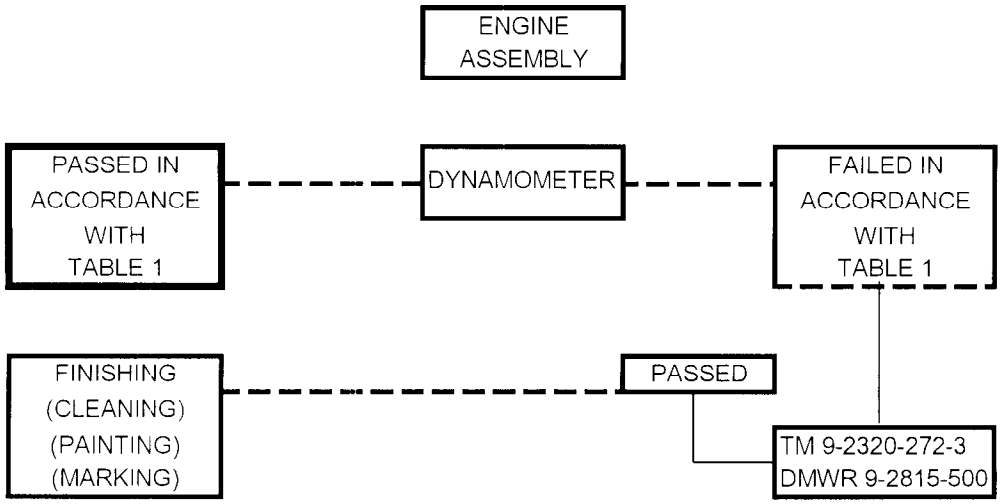
APPENDIX B

TYPE OF VEHICLE	MODEL	CHASSIS SERIAL NO	USMC NO	MILEAGE

ACTIVITY	YEAR OF MANUFACTURE

INSPECTION BY AUTHORIZED GOVT REP (SIGN & DATE)

GROUP	PART	SATISFACTORY	UNSATISFACTORY	GROUP	PART	SATISFACTORY	UNSATISFACTORY	COMMENTS
01	ENGINE			14	STEERING GEAR			
03	FUEL SYSTEM			15	FRAME			
03	TANK			15	TOWING CONNECTIONS			
03	INJECTORS			16	SHOCK ABSORBERS			
03	METER PUMP			16	SPRINGS			
03	ETHER START			18	FENDERS			
04	MUFFLER & TAIL PIPE			18	HOOD			
05	FAN & WATER PUMP			18	BED			
05	RADIATOR			18	CAB			
06	BATTERY			18	FLOOR			
06	INSTRUMENTS			18	GLASS			
06	GENERATOR			18	INTERIOR TRIM			
06	LIGHTS			18	SEATS & UPHOLSTERY			
06	STARTER			15	BUMPERS			
06	REGULATOR			18	BRUSH GUARD & GRILL			
06	WIRING			22	MIRRORS			
07	TRANSMISSION			22	WIPERS & ARMS			
08	TRANSFER				PAINT			
09	DRIVE SHAFT			33	FORDING KIT			
10	FRONT AXLE			20	WINCH			
11	INTER AXLE			22	VEHICLE ACCESSORIES			
11	REAR AXLE							
12	HAND BRAKE SYS							
12	SERVICE BRAKE SYS							
13	TIRES			ACCEPTANCE BY AUTHORIZED GOVERNMENT REPRESENTATIVE				
13	WHEELS							



IROAN Pass/Fail Logic Chart - Engine Assembly

Acceptable Operating Specifications for NHC 250 Cummins Engine

Rated Power	Minimum 250 hp at 2100 rpm
IdleSpeed	600rpm
Minimum Engine Oil Pressure at Idle	10-30 psi at 225oF
Normal Engine Oil Pressure	30-70 psi at 1200-2100 rpm
Normal Oil Temperature	180-225oF
Normal Coolant Temperature	160-2000F
Normal Inlet Fuel Pressure	169-183 psi at 2100 rpm
Fuel Inlet Temperature	100oF maximum

DYNAMOMETER RUN-IN SCHEDULE

'CUMMINS DIESEL IN-LINE (6) NHC25O - DYNAMOMETER TEST LOG ( )

Job Order No: Serial No: Date:

Test Period	Time in Minutes	Engine RPM	Dyno Load (H.P.)	Smoke Density	Oil Press	Oil Sump Temp	Water Temp	Fuel Press
	5	1000	20					
	30	1575	125					
	30	2100	188					
	30	2100	213					
	15	2100	225					
	5	2100	240 - 5%					
			FINAL CHECK RUN. TORQUE: Output _____					
	1	1500	LB FT (651-685 corrected)					
	10	1000	10					

T(G) Injector

Normal lube oil pressure, 10 to 30 psi at 225o at idle

Normal lube oil pressure, 30 to 70 psi at 1200 to 2100 rpm. (30 psi min

Lube oil sump temperature 240o maximum at 1200 to 2100 rpm.

Normal coolant temperature, l60oF to 200oF.

Fuel inlet temperature 100o MAXIMUM. Actual_____o.

Engine rpm: low idle 600;high idle, no load2195-22

RUN-IN RECORD

Item No.

_____ Test Results _____ Operator's Initials _____

Diesel Fuel Used

1. VV-F-800_____

Oil Used

2. MIL-L-21260 15W/40W_____

Brake Horsepower

3. Corrected bhp at 2100 rpm _____ (235 lb. ft. min.)

RUN-IN RECORD (CUMMINS DIESEL IN-LINE (6) NHC250)

REMARKS:

1. If abnormal noise, describe conditions: _____

_____

2. Smoothness at idle:_____

_____

3. Engine malfunction: _____

_____

_____

_____

Operator _____ Date _____ Inspector _____ Date _____

CORRECTION FACTORS

1. Horsepower Correction Data: _____

a. Barometric pressure in HG: _____

b. Wet bulb temperature oF: _____

c. Dry bulb temperature oF: _____

d. Observed HP: _____

e. Corrected HP: _____

f. Torque output @ 1500: _____

g. Torque output corrected @ 1500: _____

HICKLIN
DYNAMOMETER RUN SHEET
MT-654 TRANSMISSION

SERIAL NO. _____ DATE _____

OPERATOR _____

Fill transmission to operating level with OE/HDO-10 weight oil, conforming MIL-L-2104C

Set test stand drive unit for clockwise rotation.

Set input at 1200 rpm, closed throttle modulator setting, output unloaded,
transmission through all ranges to fill clutches.

With output stalled, full throttle modulator setting, drive 4(5) range, sta
transmission until fluid temperature reaches I70OF.

Check and reestablish correct fluid level.

MT-654CR TRANSMISSION DYNAMOMETER RUN SHEET

Test	RPM	Throttle	Output	Specific Reading:	Actual
				Main Pressure (290-315 psi)	
				Reverse Signal Pressure (290-314 psi)	
Reverse	2000±20	Full	Unloaded	Converter Flow (6.8 gpm min.)	
				Lube pressure (Cooler out) - (15 psi)	

Test	RPM	Throttle	Range	Output	Output Torque (lb. Ft. 1020) Minimum at Input Speed (rpm 750)	Main Pressure
Stall	1200±20	Full	4(5)	Stall	Actual _____	Required 180-205 psi Actual

Test	RPM	Throttle	Range	Main Pressure
Idle	600±20	Closed	4(5)	Minumum 160 psi Actual

Test	Range	Throttle	Output	Shift Point	Req rpm	Actual
Full Throttle	4(5)	Full	Loaded	L-1	375-440	
Upshift			500-1000	1C-1L	690-830	
				1-2	910-975	
				2-3	1125-1290	
				3-4	1585-1675	

Test	Range	Throttle	Output	Shift Point	Req rpm	Actual
Closed Throttle	4(5)	Closed	Loaded	4-3	845-1260	
Upshift			500-1000	3-2	705-900	
				2-1	535-690	
				1L-1C	460-590	
NOTE: Increase load until downshift occurs.				1-L	225-315	

Test	Range	Throttle	Output	Shift Point	Req rpm	Actual
Downshift	4(5)	Full	Loaded	4-3	1840-2070	
Inhibitor			500-1000	3-2	1360-1555	
				2-1	970-1180	
				1-L	475-695	

NOTE: Reduce input speed with each gear downshift.

FINAL ROAD TEST CHECKLIST

ATTACHMENT NO. _____

ALL SAFETY CHECKS MUST BE SATISFACTORILY COMPLETED PRIOR TO ROAD TESTS.

IF NECESSARY, BEFORE PERFORMING ALL TESTS AND CHECKS, WIPE DOWN COMPONENTS WHERE GREASE, OIL, OR DIRT COULD POSSIBLY FORM.

THE FOLLOWING ITEMS SHALL BE CHECKED DURING THE VEHICLE STATIC TEST WITH THE VEHICLE ENGINE OPERATING

LOW AIR LIGHT/BUZZER WILL REMAIN ON UNTIL SYSTEM PRESSURE REACHES 60 PSI.

DO NOT JUMP START VEHICLE WITH LIGHT SWITCH ON.

	SAFTY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS	INSP
1. Check the following guages for correct readings									
a. Tachometer reading 600+50 rpm at idle									
b. Engine oil pressure, minimum of 10 psi at idle									
c. Low air buzzer/light									
d. Air cleaner restriction indicator									
e. Battery guage registers in the green									
f. Fuel guage registers equivalent to tank level									
g. Engine coolant 175 to 195o F (after road test)									
h. Transmission oil temperature 120 to 220oF									
to 220o F (after road test)									
i. Primary air pressure 90 to 128 PSI									
j. Secondary air pressure 90 to 128 PSI									
2. Cab controls (can be done on raod test)									
a. Windshield washer									
b. Windshield wipers left and right									
c. Heater/defroster fan									
d. Heater									
e. Defroster ducts for air									
f. Transfer case									
(1) Shift level for ease of operation									
(2) Operates in high and low									
g. Horn for proper operation									
h. Brake operation (does not pull or									
stall when applied for a quick stop)									
(1) Park brake holds with transmission in gear									
(2) Park brake release operates properly									
(3) Service brakes operate properly									
(4) Unusual noises									

	SATFY	MISSING	SERV	ADJ	REPAIR	REPL	MODIFY	REMARKS	INSP
i. Transmission operation									
(1) Drive (all gears) and reverse									
(2) Transmission shifts smotthly									
(3) Unusual noises									
j. Acclerator									
(1) Accelerates smoothly									
(2) Doesn't stick or bind									
k. Steering									
(1) Operates smoothly									
(2) Does not wander or pull									
3. Lights (operational)									
a. Dash panel									
b. Shift selector									
c. Headlights-high and low beam									
d. Clearance/side marker lights									
e. Turn signals left/right and front/rear									
f. Emergency flashers									
g. Front axle engagement									
h. Blackout lights									
i. Tail lights, brake lights, left/right									
4. Road Test									
a. Unusual noise									
b. Excessive vibration									
c. Transmission fluid hot check (approx. 180o)									
level on dip stick between add and full									
5. Exhaust System (loose stack/misalignment/									
missing bonnet)									
a. Excessive smoke									
b. Vibration									
6. Major components									
a. Leakage									
7. Paint									
a. Flaking paint									
b. Scratches that penetrate the top coat									
8. Sheet metal damage (cab, hood, body, etc.)									
9. Miscellaneous									
(Items not previously addresses on Final Road									
Test Check List)									